

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-29 (Cancelled)

30. (currently amended) A composite (M) comprising:

a) at least 75 vol% of a mixed electronic/oxygen O^{2-} anionic conducting compound (C_1) which, at the use temperature, are in the form of a crystal lattice having oxide ion vacancies, compound (C_1) being a perovskite compound of a formula selected from the group consisting of:

- 1) $La_{(1-x-u)}Sr_xAl_uFe_{(1-v)}Ti_vO_{3-\delta}$,
- 2) $La_{(1-x-u)}Sr_xAl_uFe_{(1-v)}Ga_vO_{3-\delta}$,
- 3) $La_{(1-x)}Sr_xFe_{(1-v)}Ti_vO_{3-\delta}$,
- 4) $La_{(1-x)}Sr_xTi_{(1-v)}Fe_vO_{3-\delta}$,
- 5) $La_{(1-x)}Sr_xFe_{(1-v)}Ga_vO_{3-\delta}$ or
- 6) $La_{(1-x)}Sr_xFeO_{3-\delta}$

where:

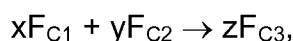
- $0 < x \leq 0.5$;
 $0 \leq u \leq 0.5$;
 $(x + u) \leq 0.5$;
 $0 \leq y \leq 0.9$;
 $0 \leq v \leq 0.9$;
 $0 \leq (y + v) \leq 0.9$; and

w is such that the structure in question is electrically neutral;

b) from at least 0.1 vol% but not more than 10 vol% of a compound (C_2) ~~chosen from oxide type materials, calcium oxide (CaO), aluminum oxide (Al_2O_3), zirconium~~

~~oxide (ZrO₂), titanium oxide (TiO₂), mixed strontium aluminum oxides SrAl₂O₄~~
selected from the group consisting of magnesium oxide (MgO) and or Sr₃Al₂O₆,
~~mixed barium titanium oxide (BaTiO₃), mixed calcium titanium oxide (CaTiO₃), La_{0.5}~~
~~Sr_{0.5}Fe_{0.9}Ti_{0.1}O_{3.5} or La_{0.6}Sr_{0.4}Fe_{0.9}Ga_{0.1}O_{3.5}; and~~

c) from 0 vol% to 2.5 vol% of a compound (C₃) produced from at least one chemical reaction represented by the equation:



in which equation F_{C1}, F_{C2} and F_{C3} represent the respective crude formulae of compounds (C₁), (C₂) and (C₃) and x, y and z represent rational numbers greater than or equal to 0.

31. (previously presented) The composite of claim 30, in which grains of compound (C₂) have an equiaxed shape with a diameter ranging from 0.1 μm to 5 μm.

32. (currently amended) The composite of claim 30, in which the volume fraction of compound (C₃) does not exceed 1.5% ~~and more particularly does not exceed 0.5% by volume.~~

33. (Previously presented) The composite of claim 32, in which the volume fraction of compound (C₃) in the composite tends toward 0.

34. (canceled)

35. (currently amended) The composite of claim ~~34~~ 30, in which the volume fraction of compound (C₂) does not exceed 5%.

36. (canceled)

37. (canceled)

38. (canceled)

39. (canceled)

40. (canceled)

41. (canceled)

42. (canceled)

43. (canceled)

44. (canceled)

45. (canceled)

46. (previously presented) The composite of claim 30, of formula:

a) $\text{La}_{0.6} \text{Sr}_{0.4} \text{Fe}_{0.9} \text{Ga}_{0.1} \text{O}_{3-\delta}$, or

b) $\text{La}_{0.5} \text{Sr}_{0.5} \text{Fe}_{0.9} \text{Ti}_{0.1} \text{O}_{3-\delta}$.

47. (canceled)

48. (canceled)

49. (canceled)

50. (previously presented) The composite of claim 30, wherein compound (C₂) is MgO.